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Managerial Enforcement of COVID-19 Protocols in Distance Education Institutions in Cross River State

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Abstract
The main thrust of this study was to determine the extent to which managers of distance education institutions are enforcing COVID-19 protocols. The area of study was in Cross River State, Nigeria. Three specific research questions guided the study. The descriptive survey research design was adopted, with the population covering 2,267 participants (including 791 instructors and 1,476 students) at the National Open University of Nigeria (NOUN), Ikom and Calabar study centres, and the National Teachers' Institute (NTI), Calabar. Stratified and simple random sampling techniques were employed in selecting 907 respondents (40% of the population). Data were collected using a questionnaire that was designed by the researcher, validated by experts and with an S-CVI of .90 and Cronbach alpha coefficients of .90, .84 and .89 for the three sub-scales. Primary data were collected through the administration of copies of the questionnaire. Findings showed a low extent in the managerial enforcement of handwashing/sanitizing, social distancing and the use of facemasks respectively. Based on this evidence, reasons for the low extent, as well as future practice and research implications were discussed. Several recommendations were also made by the researcher in light of the findings of this study.
Keywords: Coronavirus, distance, education, management, protocols, COVID-19

Introduction
The SARS-CoV-2 virus, commonly known as COVID-19, is a remarkable pandemic due to its devastating virulent capacity. The disease was discovered in December 2019; presumed to be a cluster of pneumonia cases of unknown origin at Wuhan, Hubei, China (Zhu et al., 2020). Since its outbreak, the world had suffered huge losses, a remarkable high death rate, economic loss, and disruption of educational systems. Currently, the pandemic has ravaged almost every part of the world with only fourteen countries reported to be free of the virus as of 12th of May, 2021. These countries include American Samoa, Cook Islands, Federated States of Micronesia, Kiribati, Nauru, Niue, North Korea, Palau, Pitcairn Islands, Saint Helena, Tokelau, Tonga, Turkmenistan and Tuvalu (Hubbard, 2021; WHO, 2021). Statistics retrieved from the

World Health Organization (WHO) indicated that about 3,311,780 deaths have been recorded out of 159,319,384 cases worldwide, with about 1,264,164,553 people vaccinated. With this, Nigeria accounts for about 2,065 deaths, resulting from 165,515 confirmed cases with 1,418,449 vaccine doses administered (WHO, 2021). Of the reported data in Nigeria, 394 confirmed cases and 18 deaths have been recorded in Cross River State. Favourably, no report has been made of active cases on admission in Cross River state at the time of writing (NCDC, 2021).

The high rate of the viral cases confirmed might be accorded to the diverse means of transmission, beginning from air droplets to fomites during close and unprotected contact with infected persons. These air droplets and fomites can be transferred via coughing, sneezing, or touching a contaminated surface or object. Although reports have indicated that individuals that are immune compromised are more prone to the virus (Ngwewondo et al., 2020), the virus is non-selective, making it capable of infecting anybody exposed to it (Peng et al., 2020a). While trying to mitigate the spread of the virus, many protocols were initiated. During the early time of the virus outbreak, there was an observance of inter-country and intra-country lockdown. This was followed by other protocols like the closure of schools, restriction of movement, wearing of facemask, regular washing of hands with soap/hand sanitisers, avoidance of crowded environment (like religious, political, social, market, as well as funeral gatherings), avoiding handshaking, and so on. While setting these protocols, the search for a suitable vaccine was also in place with some trials of antivirals including, Hydroxychloroquine, corticosteroids, tocilizumab, interferons, intravenous immunoglobin, mechanical ventilation, high-flow oxygen, and convalescent plasma infusion (Peng et al., 2020b).

These preventive measures seem effective as Dreher et al. (2020) reported that physical distancing mitigates the spread of the virus. Again, Peng et al. (2020a) reported that quarantine and surveillance were the most effective means of controlling the spread of infectious disease. However, the emergence of the other variants of the COVID-19 pandemic could tell how it has not been overcome. The second wave of the COVID-19 is a result of a variety of variants reported. According to the Centre for Disease Control and Prevention (CDC) (2021), five variants of the virus including B.1.1.7 (reported more deadly), B.1.351, P.1, B.1427, and B.1.429 have been isolated worldwide. The body admitted that viruses are subject to mutation implying that another variant can still emerge. Reports also have that the variants are more dangerous than the original virus since symptoms might be hidden (CDC, 2021). This implies that the fight against COVID-19 is not yet over.

Even though the variants have been reported as more deadly, the Nigerian government was led to reopening schools. Before the reopening of schools, all institutions were

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vividly compelled to provide a conducive environment, concerning the setup of COVID-19 protocols. Unlike the other educational institutions that maintain routine physical classes, distance education institutions do not meet on daily basis. Because of this, one may say that the management of distance institutions might not activate the COVID-19 protocols. The interest in understanding the level of COVID-19 mitigation protocols stimulated this study. Therefore, the study is set to evaluate the managerial enforcement of COVID-19 protocols in distance education institutions in Cross River State.

For this reason, this study is set to evaluate the managerial enforcement of social distancing, handwashing/sanitising and the use of face masks as means of mitigating the spread of COVID-19 in distance education institutions. The review of the literature revealed that the majority of the studies focused on the attitudes of students towards the setup protocols. Some studies had earlier reported that the knowledge of students towards COVID-19 was high (Fatmi et al. 2020; Ngwewondo et al., 2020; Peng et al., 2020b). Similarly, Zhong et al. (2020) found that nearly all the participants of their study wore masks when going out. This implies observance of the mitigating protocols against the spread of the virus. However, Apanga et al. (2021) reported a low response to these protocols as most of the students either did not wear a face mask, practice handwashing/hand sanitizing, or practice social distancing often/always. This was similar to Abate and Mekonnen (2020) who showed that more than one-third of the participants had poor knowledge, attitude, and precautionary measures towards COVID-19 disease.

No wonder Jacobs and Ohinmaa (2020) reported that law enforcement officers demonstrated a strong preference for educating non-mask wearers, and indicated a reluctance to resort to civil penalties that were enacted in the state orders. Again, Maqbool and Khan (2020) found that there is a lack of resources for implementing public health and social measures. This was found according to the study to be the most influential barrier to implementing public health and social measures for preventing transmission of COVID-19.

An analysis of the literature reviewed indicated that many studies that have been conducted were foreign-based; predominantly studies are conducted in China (e.g., Amir et al., 2020; Bajaria & Abdul, 2020; Bhagavathula et al., 2020; Brill & Schwab, 2019; Ningsih et al., 2021; Uddin et al., 2021; Zhan et al., 2020). In the context of Nigeria, only a handful of studies were noted (e.g., Ogbole et al., 2020; Oyeyemi et al., 2020). Besides most of the cited literature had focused on the knowledge, attitude and practices of medical personnel and/or healthcare workers (e.g., Bhagavathula et al., 2020; Corrin et al., 2017) or the general population (e.g., Abdelhafez et al., 2020; Al-Hanawi et al., 2020; Gao et al., 2020; Srichan et al., 2020; Zhong et al., 2020). Only

a few studies appear to have focused on students' attitudes towards compliance to COVID-19 precautionary measures (e.g., Cohen, et al., 2020; Olum et al., 2020; Taghrir et al., 2020; Yusuf et al., 2021). The present study deviates from existing studies in the literature intending to assess the managerial enforcement of three COVID-19 protocols.

This area was considered by the researcher because the observed knowledge, attitudes and practices (referred to as KAPs hereafter) of students reported in other studies may vary from institution to institution and from place to place. The variation in these variables (KAPs) across locations may be due to the extent of awareness created or the enabling factors provided to enhance or elicit a positive behaviour. In distance education institutions, just like other educational institutions, the educational managers may contribute to students and staff KAPs by the way they enforce the COVID-19 established mitigation measures. This is important because schools need to provide a safe learning atmosphere to all human resources available. The school managers, in this context, can contribute to promoting environmental or institutional safety by ensuring that all stated protocols are observed in schools. From the perspective of the researcher, since educational managers are not usually medical practitioners (to offer treatment to infected persons), they can contribute by enforcing or instituting policies aimed at enforcing stated safety guidelines in schools.

Research questions

The study has been designed to answer the following questions:

1. To what extent is the handwashing/sanitising protocol enforced by the management of distance education institutions in Cross River State?
2. What is the extent of the enforcement of the social distancing protocol by the management of distance education institutions in Cross River State?
3. What is the extent to which the compulsory use of face mask is being enforced by the management of distance education institutions in Cross River State?

Methodology

The descriptive survey research design was adopted for the study. This design was chosen because it allowed the researcher to collect data on the phenomena of interest as they are occurring in the population. The aim was to describe such phenomena using survey instruments. The population of this study comprised a total of 2,267 participants (including 791 instructors and 1,476 students) at the National Open University of Nigeria (NOUN, Ikom and Calabar study centres) and the National Teachers' Institute (NTI), Calabar. The stratified random sampling technique was applied by the researcher to split the population into two strata (instructors and students). In each stratum, the simple random sampling technique was adopted in

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selecting 40% of the population. Consequently, a total of 907 respondents were randomly selected as the study's sample.

The instrument used for data collection was a questionnaire that was designed by the researcher and tagged: "Managerial Enforcement of COVID-19 Protocols in Higher Education Questionnaire (MECPHEQ)." The instrument is composed of two sections – section A and B. While section A was used to collect the demographic information of the respondents, section B was used to obtain information on the managerial enforcement of COVID-19 protocols. Section B was further structured into three clusters. Cluster one had 10 items arrange on a four Likert scale (Strongly Agree, Agree, Disagree, and Strongly Disagree) measuring the enforcement of hand washing/sanitizing. Cluster two had eight items measuring the enforcement of social distancing with four response options (Not at all, Rarely, Sometimes, Always). Also, cluster three had 10 items measuring the enforcement of the use of facemask with four response options (Strongly Agree, Agree, Disagree, and Strongly Disagree).

The instrument was validated for face and content validity by five experts, with I-CVI values of .86, .89, and .91 for the three clusters respectively. The overall scale content validity index of the instrument was .90. Despite these values, some items required some modifications for clarity, while items with low I-CVI were dropped due to relevance. The instrument was further evaluated for reliability. A trial test was conducted on 20 instructors and 30 students at the University of Calabar. These participants were randomly selected due to their shared culture in the area where the distance education institutions of the actual respondents of this study were located. The Cronbach Alpha approach was applied to the data collected from the trial test, with an overall coefficient of .88 suggesting that the instrument was internally consistent for measurement purposes. For the three sub-scales, Cronbach alpha values of .90, .84 and .89 were obtained accordingly.

The researcher obtained permission to research the management of the distance education institutions in the area of study. After making contact with the participants, the researcher explained the objectives of the research to the targeted respondents. The researcher also discussed the implications for participating in the research, the expected completion time and how the data that is sought will be treated. Respondents were specifically informed that the data that shall be collected will be aggregated, anonymized and that reports prepared based on the data collected will be published without any identifying or personal information of the respondents. After the briefing and ethical consideration, an opportunity was then provided for voluntary participation in the exercise. Out of the 907 respondents, 894 consented to participate in the exercise; while the 11 subjects declined for personal reasons. Copies of the MECPHEQ were administered to the 894 respondents. Upon completion, it was

discovered that 889 respondents correctly filled and returned copies of the questionnaire. This indicates a 99.4% return rate of the administered copies of the instrument. The collected data were scored appropriately, taking into consideration negatively and positively worded items. The data were further prepared on a person-by-item matrix with the aid of a computer spreadsheet programme. Descriptive statistics such as mean and standard deviation were used to analyse the data and provide answers to the research questions.

Presentation of results

Research question 1: To what extent is the handwashing/sanitising protocol enforced by the management of distance education institutions in Cross River State?

The results of the first research question presented in Table 1, revealed generally that there is a low extent of the managerial enforcement of handwashing/sanitising in distance education institutions in Cross River State ($\bar{x}$ = 1.99 ± .87)**.** Specifically, there was a low extent recorded for eight items measuring the enforcement of handwashing/sanitization in distance education institutions. However, two items (item 2 and 7) were rated to a high extent by respondents.

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Table 1: Managerial enforcement of handwashing/sanitizing in distance education institutions in Cross River State

S/N	ITEM	SA %	A %	D %	SD %	$\bar{x}$	St.D.
1	At the entrance of my school, staff are made to wash their hands	26 2.9	19 2.1	424 47.7	420 47.2	1.61	.68
2	There are available handwashing facilities in my school.	219 24.6	231 26.0	210 26.3	229 25.8	2.50	1.12
3	Students are not allowed to enter the school unless they wash their hands on a running tab	28 3.1	35 3.9	331 37.2	495 55.7	1.55	.72
4	In my school, enforcement agents move from place to place ensuring strict compliance to hand washing	21 2.4	24 2.7	314 35.3	530 59.6	1.48	.67
5	Students who do not comply to hand washing regulation are usually penalized in my school	214 24.1	234 26.3	211 23.7	230 25.9	2.49	1.12
6	Staff are not usually queried for not adhering to the protocols	0 0	0 0	462 52.0	427 48.0	1.52	.50
7	Awareness campaigns on handwashing/hygiene are usually created in my school	225 25.3	229 25.8	220 24.7	215 24.2	2.52	1.11
8	The handwashing process in my school is not highly regulated.	78 8.8	66 7.4	390 43.9	355 39.9	1.85	.90
9	Hand sanitisers are provided in my school at strategic locations	0 0	306 34.4	295 33.2	288 32.4	2.02	.82
10	Personnel without evidence of the possession of hand sanitisers are not allowed into the school	182 20.5	244 27.4	211 23.7	252 28.3	2.40	1.10
	Average					1.99	.87

Criterion mean = 2.5; SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree; $\bar{x}$ = Mean; St.D. = Standard deviation

Research question 2: What is the extent of the enforcement of the social distancing protocol by the management of distance education institutions in Cross River State?

The result of the second research question presented in Table 2, revealed a low extent in the managerial enforcement of social distancing in distance education institutions in Cross River State ($\bar{x}$ = 1.22 ± 0.98). Specifically, all the items measuring the enforcement of social distancing in distance education institutions were all rated below the expected criterion mean.

Table 2: Managerial enforcement of social distancing in distance education institutions in Cross River State

S/N	ITEM	N %	R %	S %	A %	$\bar{x}$	SD
1	In my class, students still seat closely to themselves	153 17.2	238 26.8	249 28.0	249 28.0	1.33	1.06
2	Lectures involving large crowd and students are usually taken in streams	258 29.0	236 26.5	192 21.6	203 22.8	1.62	1.13
3	During hand washing, personnel are made to stay two meters apart	58 6.5	264 29.7	243 27.3	324 36.4	1.06	0.96
4	In situations involving long queues, students are allowed to stand the way they like	77 8.7	223 25.1	259 29.1	330 37.1	1.05	0.98
5	Enforcement agents visit the classroom to ensure a wide spacing of students' seating arrangement	39 4.4	204 22.9	304 34.2	342 38.5	0.93	0.89
6	Sensitizations on social distancing are created in my school using available channels	204 22.9	233 26.2	230 25.2	222 25.0	1.47	1.10
7	During public events (such as matriculation, convocation, inaugural lectures, etc.), social distancing policies are not enforced in my school	0 0	206 23.2	289 32.5	394 44.3	0.79	0.79
8	Personnel who engage in activities requiring the crowding of people are penalized for breaching social distancing policies in my school	203 22.8	211 23.7	282 31.7	193 21.7	1.48	1.07
	Average					1.22	.98

Criterion mean = 2.50; N = Not at all; R = Rarely; S = Sometimes; A = Always; $\bar{x}$= Mean; SD = Standard deviation

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Research question 3: What is the extent to which the compulsory use of facemask is being enforced by the management of distance education institutions in Cross River State?

The result of research question three as presented in Table 3 showed, on a general note, that there is a low extent of the managerial enforcement of the use of facemasks in distance education institutions in Cross River State ($\bar{x}$= 2.06 ± 0.95). Specifically, only four out of ten managerial practices were rated to a high extent; the other six were rated to a low extent. Item 1, 2, 8 and 10 were rated with mean values above the 2.50 threshold, while the other items were below the criterion mean.

Table 3: Managerial enforcement of the use of facemasks in distance education institutions in Cross River State

S/N	ITEM	SA %	A %	D %	SD %	$\bar{x}$	St.D.
1	Campaign on the compulsory use of face mask is rarely organized by the management of my school	234 26.3	214 24.1	214 24.1	227 25.5	2.51	1.14
2	The management of my school, have dedicated personnel that check for the compulsory use of face mask at all entry points	234 26.3	219 24.6	229 25.8	207 23.3	2.54	1.11
3	There are no dedicated personnel assigned by the school management to apprehend non-complying individuals in my school	203 22.8	237 26.7	228 25.6	221 24.9	2.47	1.10
4	Students caught without the use of facemask are usually sanctioned in my school	74 8.3	190 21.4	273 30.7	352 39.6	1.98	0.97
5	Some students are often seen roaming the school environment without wearing facemasks	7 0.8	163 18.3	204 22.9	515 57.9	1.62	0.81
6	Staff are usually allowed to enter the school by enforcement agents without the use of a facemask	6 0.7	6 0.7	205 23.1	672 75.6	1.26	0.50
7	Upon exit, there is no strict compliance on the enforcement on the use of facemasks	64 7.2	62 7.0	258 29.0	505 56.8	1.65	0.90

8	Students are compelled to wear facemask during lectures	236 26.5	230 25.9	212 23.8	211 23.7	2.55	1.12
9	The management of my school ensures that only recommended types of facemask are worn by individuals	34 3.8	62 7.0	220 24.7	573 64.5	1.50	0.79
10	The use of face shield is discouraged by the management of my school	214 24.1	244 27.4	220 24.7	211 23.7	2.52	1.10
	Average					2.06	.95

Criterion mean = 2.5; SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree; $\bar{x}$= Mean
St.D. = Standard deviation

Discussion of findings

The finding of this study revealed that there is a low extent of managerial enforcement of handwashing/sanitisation in distance education institutions. The low extent discovered in this study is attributed to the low extent in management ensuring that staff wash their hands at the entrance of the institutions; all students do not enter the school without washing their hands; enforcement agents move from place to place ensuring strict compliance to handwashing protocols; staff and students who do not comply to hand washing regulation are penalized for non-compliance; the hand washing process is highly regulated; hand sanitisers are provided at strategic locations. This finding does not corroborate the research of Maqbool and Khan (2020) which found that there is a lack of resources for implementing public health and social measures. This, according to the cited study, was the most influential barrier to implementing public health and social measures for preventing transmission of COVID-19. On the contrary, this study showed that, although personnel without evidence of the possession of hand sanitisers are sometimes allowed into the schools, hand washing facilities were made available and awareness campaigns on handwashing/hygiene were created to a reasonable extent. The disagreement between the result of the cited study and the present research may be attributed to locational variations or methodological robustness of one study over the other.

The study also revealed a low extent in the managerial enforcement of social distancing in distance education institutions. This finding results from the low extent in management ensuring that students sit spaciously in classes; reducing large or crowded classes into streams; personnel stay two meters during hand washing or other situations involving long queues; enforcement agents visit classrooms to ensure a wide spacing of students' seating arrangement; sensitizations on social distancing are

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created using available channels; social distancing policies are enforced during public events like matriculation, convocation, inaugural or public lecture; personnel who engage in activities requiring the crowding of people are penalized for breaching social distancing policies. The low rate of enforcement of social distancing could be the reason why other scholars such as Abate and Mekonnen (2020) reported that more than one-third of the participants had poor knowledge, attitude, and precautionary measures towards COVID-19 disease.

Lastly, this study uncovered that the managerial enforcement of the use of facemasks in distance education institutions is low. The low extent in the managerial enforcement of the use of facemask is attributed to the failure of the management to ensuring that there are dedicated personnel assigned to apprehend non-complying individuals; Students caught without the use of facemask are sanctioned; no student is seen roaming the school environment without wearing facemask; no staff is allowed to enter the school by enforcement agents without the use of facemask; upon entry or exit, there is always strict compliance to the use of facemask by both staff and students; only the recommended types of facemasks by WHO or CDC are worn by individuals in the school. However, despite the results, a high extent was recorded in terms of management organising campaigns on the compulsory use of facemask; providing dedicated personnel that check for the compulsory use of face mask at all entry and exit points; compelling students to wear facemasks during all lectures; discouraging the use of face shield by staff and students as a non-recommended device by WHO nor CDC.

The third finding challenges the result of the study of Zhong et al. (2020) which found, on the contrary, that nearly all the participants of their study wore masks when going out. The researcher does not cast doubt over the result of the cited study since it was conducted in China and utilising a population of medical workers/professionals. The present study is based in Nigeria and utilised a population of personnel in distance education institutions. Although nothing was said in the study of Zhong et al. about the enforcement of COVID-19 laws; from inference, one would expect medical practitioners (who are at the frontline in the fight against the spread of the virus) to be aware of the dangers of non-adherence to COVID-19 protocols to themselves and society. Thus, the differences in findings, seems justified, especially, when we consider the low rate of enforcement in distance education institutions. This finding tends to support the result of Apanga et al. (2021) that reported a low response to these protocols as most of the students either did not wear a facemask, practice handwashing/hand sanitizing, or practice social distancing often/always.

Limitations and suggestions for future research

The study faces few limitations resulting from the scope of the study. First, the study covered only two distance education institutions in Cross River State, Nigeria. This implies that generalisations made may not give a reflection of things elsewhere except the two institutions covered. The study did not explore the extent of managerial enforcement of all the COVID-19 protocols that there is. However, the study focused on the managerial enforcement of just three of COVID-19 protocols (handwashing, social distancing and the use of facemasks). Although these three were chosen because of their enforceability, findings would have been richer, if other protocols were considered. Based on these limitations, it is suggested that future researches on related areas integrate other protocols. Large-scale future studies (at the regional, national or cross-country levels) incorporating other higher education institutions such as Universities, Polytechnics and Colleges are recommended, to allow for a wide range of generalisation. Since no research can address all the concerns surrounding a problem at one shot, the limitations of this study do not, in any way, diminish its quality.

Conclusion

This study was aimed at evaluating the extent of the managerial enforcement of COVID-19 protocols in distance education institutions in Cross River State. Three COVID-19 protocols were of interest to the researcher, for which managerial enforcement was sought. These include the enforcement of handwashing, social distancing and the use of facemasks. Quantitative data were obtained from respondents through a survey. After the analysis of the data, it was established that there is a low extent in the managerial enforcement of COVID-19 protocols in distance education institutions in Cross River State. This research implies that the poor enforcement of COVID-19 protocols in distance education institutions may birth low awareness and compliance, which may, in turn, lead to difficulty in mitigating the spread of the virus in the future. It may also be difficult to provide environmental safety in the future if irresponsible practices of staff and students (resulting from non-enforcement) lead to a widespread of the COVID-19 pandemic in distance education institutions.

Recommendations

Based on the findings of this study, it is recommended that:

i. All distance education institutions should ensure that all the policies surrounding handwashing and the use of hand sanitisers, as prescribed by WHO and CDC, are sufficiently enforced by the management.

ii. No lecture should be allowed to take place unless students are made to sit at least two metres apart; furthermore, gatherings involving more than 50 people should be discouraged and those non-adhering to this protocol should be summarily dealt with.

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iii. At all entry and exit points, there should be strict enforcement of the compulsory use of facemask by both staff and students. No matter the portfolio, no staff or student should be seen on institutional premises without wearing a facemask. This can be achieved through the deployment of enforcement agents, task force or other dedicated personnel assigned to do so.

iv. There should be regular supervision of all personnel (staff, students, task force, and security men) to ensure that there is consistent compliance to prescribed laws and for quality service delivery.

v. All personnel not adhering to stated laws should be disciplined to serve as a deterrent to other people likely to commit similar offences in the future.

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